

REMARKS

The present claims relate to a rubber composition and production processes for a rubber component-containing coagulated matter.

Foreign priority

Applicants respectfully request that the Examiner acknowledge Applicants' claimed foreign priority in the next Office Action.

Information Disclosure Statement

Applicants note that the Examiner has crossed off the references listed in the PTO SB/08 Form submitted on October 15, 2004. However, Applicants respectfully submit that the present application is a national stage entry of PCT/JP03/05197. Therefore, Applicants are not required to submit the references listed on the Form PTO/SB/08. Applicants respectfully request that the references be obtained from the International Bureau.

In light of the above, Applicants respectfully request that the Examiner sign and initial the Form PTO/SB/08.

Response to rejection of Claims 1-20 under 35 U.S.C. § 103

In the Office Action, Claims 1-20 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Chung et al. (U.S. Patent No. 6,372,822) (hereinafter "Chung") or Yanagisawa et al. (U.S. Patent Application Publication No. 2003/0088006) (hereinafter "Yanagisawa").

A. Response to rejection based upon Yanagisawa

With respect to the rejection based upon Yanagisawa, Applicants respectfully submit the following **Statement of Common Ownership**:

The present application and Yanagisawa were, at the time the invention of the present application was made, commonly owned by Bridgestone Corporation.

In view of this statement of common ownership, Yanagisawa is disqualified as prior art for purposes of section 103 with respect to the present application. *See* 35 U.S.C. § 103(c).

Accordingly, the Examiner is respectfully requested to withdraw the § 103 rejection of Claims 1-20 based on Yanagisawa.

B. Response to rejection based upon Chung

Independent Claim 1 recites a rubber composition blended with a rubber component-containing coagulated matter, wherein a rubber component is blended, and the rubber component comprises a component (A) comprising at least one of a natural rubber and a diene base synthetic rubber and a component (B) comprising a rubber component-containing coagulated matter obtained by drying and coagulating a serum of natural rubber obtained by centrifugally separating a natural rubber latex.

Independent Claim 11 recites a production process for a rubber component-containing coagulated matter, comprising a step of centrifugally separating a natural rubber latex, a step of coagulating a resulting serum and a step of drying the coagulated serum.

Independent Claim 12 recites a production process for a rubber component-containing coagulated matter, comprising a step of coagulating a natural rubber latex by vaporization, a step of turning a resulting coagulated matter into crumbs and a step of drying the coagulated matter turned into crumbs.

The present claims relate to the incorporation of a serum component into a rubber composition in which a vulcanization-accelerating substance in the serum or latex of natural rubber is reduced. As discussed in the specification, the prior art discloses that the serum component of natural rubber is separated from the rubber component during the production processes used to prepare natural rubber (see page 2, lines 8-24 of the present specification). In the processes of the prior art, the serum component is discarded, and is not incorporated by direct drying into the natural rubber. However, it is noted that the serum component contains both components that are useful for a natural rubber composition (see page 3, lines 6-18 of the present specification), as well as components that are not useful in natural rubber compositions (such as materials that may lead to scorching during vulcanization) (see page 4, lines 3-4 of the present specification).

As recited in Claim 1, a serum of natural rubber according to the present claims is obtained by centrifugally separating a natural rubber latex and then coagulating and drying it to produce component (B). The drying of the separated natural rubber latex leads to the decomposition of a lipid component that would otherwise act to accelerate the composition's vulcanizing speed - an adverse effect that is reduced due to the drying of the latex (see page 14, lines 8-12 of the present specification). Accordingly, the resulting rubber composition has improved scorching properties during vulcanization and has improved aging resistance.

Applicants respectfully submit that Chung does not disclose or teach the presently claimed invention because Chung does not disclose or teach the presently recited serum of natural rubber.

Chung discloses an apparatus and method for producing elastomer compositions that have macrodispersion of fillers, such as carbon blacks, and which assertedly have controlled

Mooney Viscosities (column 7, lines 1-8), but does not disclose or teach the use of the presently recited natural rubber serum. Chung discloses that the method includes mixing an elastomer latex with particulate filler fluids (column 8, lines 11-13), e.g., dispersing a carbon black within natural rubber (column 3, lines 26-28). Chung further discloses that the method it discloses is useful because it controls the moisture level of the elastomer masterbatch therein and reduces the need for further mixing at user facilities (column 26, lines 8-11). In addition, Chung describes that the natural rubber latex concentrate is produced by centrifugation, but mentions nothing about natural rubber serum.

Applicants therefore respectfully submit that Chung does not disclose or teach the presently recited serum of natural rubber, and does not anticipate or render obvious the present claims. Applicants respectfully request the reconsideration and withdrawal of this § 103 rejection.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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